# MEDICAL PROCEEDINGS

# MEDIESE BYDRAES

A South African Journal for the Advancement of Medical Science

'n Suid-Afrikaanse Tydskrif vir die Bevordering van die Geneeskunde

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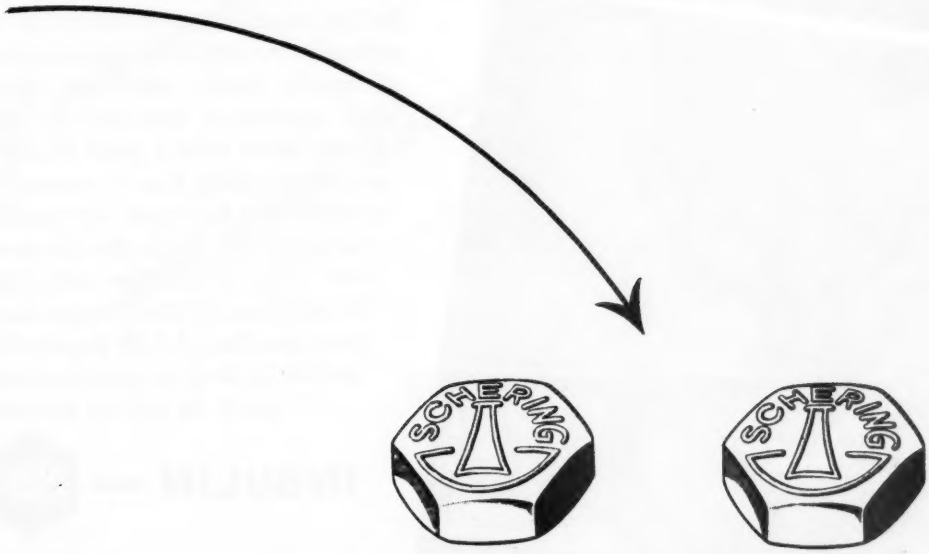
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# Medical Proceedings · Mediese Bydraes

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H. A. Shapiro, B.A., Ph.D., M.B., Ch.B., F.R.S.S.Af.

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## REDAKSIONEEL · EDITORIAL

### VIER-EN-TWINTIG-PERSENTERS

#### 'N NUWE LOT VIR DIE GENEESKUNDIGE PROFESSIE

Onlangse berigte van georganiseerde versoeke deur die geneeskundige professie in die Verenigde Koninkryk om 'n verhoging van 24% in vergoeding het aan die lig gebring watter ernstige situasie kan ontwikkel wanneer die administratiewe beheer van die kliniese praktyk uit die hande van die praktisyns self raak.

Die geveg van ons Britse kollegas om hulle matige verhoging (op 'n tydstip wanneer die lewensduurte die hoogte ingeskiet het buite alle verhouding tot die gelde wat vir kliniese dienste betaal word) behoort as 'n ernstige waarskuwing vir ons in Suid-Afrika te dien, waar daar 'n toenemende (en tot dusver nog weinig beteuelde) neiging by georganiseerde verbruikers bestaan om beheer op te lê op *privaat* mediese praktisyns vir hulle dienste.

Daar word altyd groot moeilikheid ondervind om 'n betreklik swak-georganiseerde groep soos geneeshere te oortuig om 'n eenparige houding in te neem; want die professie het sy volle aandeel aan bangeriges, wankelendes en dié wat aan so 'n oormatige versigtigheid ly dat hulle verlamde slagoffers is wat nie in staat tot enige aksie is nie. Die uiteindelike besluit van die Britse geneeshere om aan te dring op 'n redelike (en moontlik 'n onvoldoende) verhoging in vergoeding was merkwaardig maar selfs al sou die versoek

### TWENTY-FOUR PERCENTERS

#### A NEW FATE FOR THE MEDICAL PROFESSION

Recent reports of the organized demand by the medical profession in the United Kingdom for a 24% increase in remuneration has revealed how grave a situation can develop when the administrative control of clinical practice passes out of the hands of the practitioners themselves.

The battle of our British colleagues for their modest increment (at a time when the cost of living has skyrocketed out of all proportion to the charges being paid for clinical services) should act as a stern warning to us in South Africa, where there is a growing (and, as yet, hardly checked) tendency by organized consumer groups to impose control on *private* medical practitioners for their services.

There is always great difficulty in persuading a relatively poorly organized group such as doctors to take a unanimous stand; for the ranks of the profession have their full share of the timid, the vacillating and those who suffer from such an excess of caution that they are virtually paralysed victims incapable of action. The ultimate agreement amongst the British doctors to press for a reasonable (and possibly inadequate) increase in remuneration was remarkable; but even if the demand should succeed (and so far it appears unlikely) there will still be a considerable and serious

slaag (en tot dusver lyk dit onwaarskynlik) sou dit nogtans 'n aansienlike en ernstige ekonomiese verlies vir die betrokke praktisyns beteken het. Dit was hulle onvoldoende vergoeding gedurende die afgelope paar jaar wat hulle verplig het om vertraagde verligting te soek.

Die omslagtige onderhandelingsmetode kan alleen daarin slaag om tot 'n mate 'n situasie reg te stel wat vir 'n geruime tydperk besig was om te versleg; en daar moet verwag word dat soos die algemene ekonomiese toestand gedurende die komende jare verander, die geneeshere weereens sal ondervind dat die vergoeding vir hulle kliniese dienste weer stadigaan minder sal word as die waarde van hierdie dienste. Onderhandelings om die vergoeding gedurende inflasie aan te pas, kan alleenlik verdere verliese vir die betrokke praktisyns meebring.

Die groei van Mediese Hulp- en Bystandsfondse in Suid-Afrika het alreeds 'n ernstige ekonomiese toestand geskep vir geneeshere wat in die Unie praktiseer. Mediese gelde het gebly op 'n verlaagde kerf en die nadelige en onrealistiese beleid van 'n gelyke skaal vir die hele land het duisende van ons kollegas geskaad wat in gebiede praktiseer waar die lewensduurte buitengewoon hoog is en praktiseer-toestande radikaal verskil van dié in ander streke. Ons is ook in 'n posisie gedwing wat ongehoord is in ander professies, nl. om die dienste wat ons lewer self te subsidieer.

Die geneeskundige professie het nog nooit geaarsel om met die verskaffing van sy dienste liefdadig te wees wanneer daardie liefdadigheid geregverdigd is nie. Ons vrygewigheid in dié verband word inderdaad deur almal erken, maar ons begin 'n stadium bereik waar hierdie grootmoedigheid uitgebuit en misbruik word.

Dit is ons mening dat daar geen gronde bestaan nie om geneeshere te verplig om grootliks-verminderde gelde te vra vir feitlik die hele blanke bevolking van Suid-Afrika op 'n tydstip wanneer daar ekonomiese welvaart, uitbreiding en voortuitgang heers.

Die onbillike beginsel opgesluit in die verminderde tariewe vir kontrak-werk verdien heroorweging. Die oomblik het inderdaad aangebreek vir die hersiening van die ekonomiese grondslag van die verskaffing van mediese dienste. Die professie sal eerste wees om hulp te verleen aan diegene wat dit werklik nodig het; maar ten einde misbruik van die geneesheer se kwesbare posisie te voorkom moet ons 'n meer realistiese grondslag aanvaar

economic loss to the practitioners involved. It was their insufficient reward in recent years that compelled them to seek belated relief.

The ponderous method of negotiation may only repair to some extent a situation which has been deteriorating severely for some time; and it must be expected that, as the general economic situation alters in the coming years, the doctors will once again find that the payment for their clinical services will recede steadily from the value of these services. Negotiated, periodic adjustments of remuneration in times of inflation can therefore only result in recurring losses in the future to the practitioners concerned.

The growth of Medical Aid and Benefit Societies in South Africa has already created a serious economic condition for doctors practising in the Union. Medical fees have been maintained at a depressed level and the injurious and unrealistic policy of a uniform scale for the whole country has prejudiced thousands of our colleagues who practice in areas where the cost of living is unusually high and the conditions of practice radically different from those in other geographical regions. We have also been forced into a position unheard of in other professions, viz. the subsidization by us of the services we provide.

The medical profession has never hesitated to be charitable in the provision of its services when that charity has been warranted. Indeed, our professional generosity in this regard is recognized by all; but we are reaching a stage where this generous impulse is being exploited and abused.

In our view, no case can be made out for compelling the medical profession to charge severely reduced fees for virtually the whole of the European population in South Africa at a time of economic prosperity, expansion and advance.

The inequitable principle enshrined in the reduced tariffs of fees for contract practice needs reconsideration. Indeed, the time has come to review the economic foundations of the provision of medical services. The profession will be in the van in assisting those who genuinely need help; but in order to prevent abuse of the doctors' vulnerable position, we should adopt a more realistic basis for rewarding the private medical practitioner.

We recognize that the cost of medical care has increased. In fact, the position has to-day arisen when a plumber may earn more for a visit to fix a tap than a general practitioner can when attending a patient who is seriously

vir die vergoeding van private mediese praktisyns.

Ons erken dat mediese koste vermeerder het, soos die koste van vele ander professionele en nie-professionele dienste ook toegeneem het. Feit is dat die posisie vandag ontstaan het waar 'n loodgieter meer kan verdien met 'n besoek om 'n kraan te herstel as wat 'n praktisyn kan verdien wanneer hy 'n ernstigsieke pasiënt besoek. Ons volg nie die logika wat die loodgieter beskerm (omdat die lewensduurte hoog is nie) maar terselfdertyd verwag dat die geneesheer, wie se lewensduurte ook gestyg het, sy gelde moet verminder.

Vir diegene wat privaat mediese dienste verlang is die oplossing duidelik te vind in 'n skema waardeur hulle kan verseker wanneer hulle gesond is, teen die koste van siekte wanneer hulle ongesteld is. Maar hierdie koste vir mediese sorg moet die normale privaat mediese gelde wees. Die ekonomiese beginsels wat hierby betrokke is, verskil geensins van dié wat van toepassing is op gewone versekering teen talle risiko's, soos wanneer die gewone burger, bv. sy motor verseker nie.

'n Lang proefneming het bewys dat die geneesheer uitgebuit kan word deur die onbehoorlike toepassing van verminderde tariewe op groepe wat moontlik aanspraak kan maak op die voordele wat eintlik net vir dié is wat liefdadigheid verdien.

In Suid-Afrika is ons nog op die stadium waar 'n vinnig-verslegtende toestand gekeer of reggemaak kan word. Ons kan dit heel moontlik nodig vind om die spesiale tariewe vir kontrak-praktyk te skraap, aangesien dit ongeregverdig is. Die ondervinding wys duidelik dat die oplossing te vinde is in een of ander vorm van versekering teen siekte, sodat die geneesheer vergoed sal word deur die betaling van die volle private mediese gelde. (Die bedrag van die premie wat deur die pasiënt betaal word, sal sy dekking vasstel). Vir diegene in die laer en hulpbehoewende inkomstegroepe wat in die nywerheid of handel werk, kan daar ook geen verskoning wees vir differensiële gelde ten koste van die geneesheer nie. Die betaling van volle mediese gelde moet duidelik die verantwoordelikheid wees van die betrokke nywerheid of handelsonderneming, tot wie se ekonomiese belang en voordeel dit strek om te verseker dat sy mannekrag op die hoogste kerf van gesondheid en doeltreffendheid gehou word. Daar is sekerlik geen goeie morele rede waarom menslike wesens meer verkwistend geag moet word as masjiene nie. Die handel en die nywerheid is so diep onder die indruk van sy plig om mediese dienste in baie ondernemings te verskaf, dat siekteversekering dikwels 'n verpligte voorwaarde van indiensneming is. Maar die werker se onvermoë om die volle mediese gelde te betaal word ten koste van die mediese beroep gesubsidieer.

Die koste van mediese sorg onder sulke omstandighede is duidelik iets wat geheel en al gedra moet word deur die betrokke werkgewer en werknemer, en wel op so 'n manier dat dit albei onderling tevrede stel. Dit is belaglik om sake so te reël dat van die geneesheer verwag word om die handel en die nywerheid met sy dienste te subsidieer.

ill. We do not follow the logic which protects the plumber (because the cost of living is high) but expects the doctor to reduce his fees in the same economic context.

For those who seek private medical services the solution lies clearly in a scheme whereby they can insure themselevs when they are well against the costs of sickness when they are ill. But these costs of medical care should be the normal private medical fees. The economics involved is no different from that which governs insurance by the citizen against many other risks he runs, e.g. with his motor car.

A long trial has shown that the doctor may be exploited by reduced tariffs not properly applicable to the groups which gain access to privileges which should only be enjoyed by those deserving of charity.

In South Africa we are still at the stage where a rapidly worsening situation may yet be corrected and remedied. The special tariffs for contract practice may well need to be scrapped, as they are unwarranted. Experience has clearly pointed to a solution along the lines of some form of insurance against illness, so that the doctor will be rewarded by the payment of full private medical fees. (The amount of the premium paid by the patient will determine the extent of his 'cover'.) For those in lower income groups, if they are employed by industry or commerce, there can also be no excuse for a differential fee at the expense of the doctor. The payment of full medical fees should clearly be a charge on the industry or commercial undertaking concerned, to whose economic interest and advantage it is to ensure that its manpower is maintained at optimal health and efficiency. There is certainly no good moral reason why human beings should be regarded as more expendable than machinery. To such an extent do Commerce and Industry recognize an obligation in the provision of medical services in many undertakings, that sickness insurance is often a compulsory condition of employment. But the subsidization of the employee's inability to pay full medical fees has been contrived at the expense of the medical profession.

The cost for medical care in such circumstances is clearly one which should be borne wholly by the employer and the employee concerned, in a manner arranged to their mutual satisfaction. It becomes ludicrous to arrange affairs in such a way that the doctor is expected to subsidize commerce and industry with his services.

The adoption of the economic principles

As die ekonomiese prinsiepe soos geskets aangeneem word, sal dit duidelik wees wie hulle is wat eerlik liefdadigheid verdien en sal so verseker word dat dié wat dit verdien nooit in gebreke sal bly om dit van die mediese professie te ontvang nie.

Die jongste ondervinding in ander dele van die wêreld het die wysheid daarvan getoon om die georganiseerde verskaffing van mediese privaatdienste onder die sorg en leiding te plaas van diegene wat self in mediese privaat-praktyk is. Op hierdie manier word die status van die geneesheer as 'n professionele man beskerm en word die ekonomiese misbruik van sy kliniese vaardigheid verhoed.

Op die oomblik is een of ander soortgelyke stap dringend nodig. Die toenemende heerssugtige beheer van mediese praktyk moet bestry en verwerp word. Met die diagnose, behandeling en sorg beoefen die geneesheer sy talente om die indiwiduele geval te behandel. Ons vind die neiging inderdaad steurend om die geneesheer wat kontraktueel in diens geneem is, te beperk en te wys watter middels of dienste hy toegelaat sal word om voor te skryf. Hierdie ongesonde inmenging met die vrye keuse van middels of dienste is verdere bewys van die ongewensde wyse waarop selfs die terapeutiese behoeftes van die pasiënt vasgestel word deur diegene wat die minste in voeling met hom is.

Vir ons is dit onaanneemlik dat al hierdie dinge ter wille van besuiniging gedoen word. Die koste van mediese sorg het natuurlik gestyg, maar dit is nog geen rede om te verwag dat die geneesheer moet bydra tot die koste van sy mediese dienste nie, of om suinig te wees met die verskaffing van middels of ander dienste wat essensieel is vir die behoorlike behartiging van sy kliniese praktyk.

Mediese praktisyns van ons land moet betyds stappe doen om te verhoed dat hulle omskep word in 'n professie van 24-persenters. Die huidige toestand vernietig die geneesheer se professionele status. Indien skrikkerigheid, massa inertia en 'n oorgretigheid om te paai ons medies-politieke handelinge vandag beheer, kan ons weldra vind dat ons ook vir 24% vir ons vra, waarskynlik met net so min sukses as dié wat op die pogings van ons Britse kollegas gevolg het.

(*Kyk ook op bl.* 68 *in hierdie uitgawe*)

outlined will make clear who those are who truly deserve charity and so ensure that those meriting it will never fail to get it from the medical profession.

Recent experience in other parts of the world has indicated the wisdom of bringing the organized provision of private medical services under the care and guidance of those who are themselves in private medical practice. In this way, the status of the doctor as a professional man is protected and the economic abuse of his clinical skill is prevented.

Some such step is necessary and urgent at the present time. The growing bureaucratic control of medical practice must be resisted and rejected. In diagnosis, treatment and care, the doctor exercises his talents to deal with an individual case. Indeed, we find alarming the tendency to limit and direct the doctor contractually employed concerning what drugs or services he shall be permitted to prescribe. This unhealthy interference with the free choice of drug or service is further evidence of the undesirable way in which even the therapeutic needs of the patient are being determined by those in least intimate contact with him.

We find unacceptable the explanation that all these things are being done in the cause of economy. Of course, the cost of medical care has grown: but that is no reason to expect the doctor to pay towards the cost of providing his services or to cheesepare in the provision of drugs or other services essential for the proper conduct of his clinical practice.

The medical practitioners in this country should take timely steps to prevent their conversion into a profession of 24-percenters. The contemporary situation is destroying the doctors' professional status. If temerity, mass inertia and appeasement govern our medico-political actions to-day, we may soon also find ourselves asking for our 24%—and probably with as scant likelihood of success as has attended the efforts of our British colleagues.

(*See also p.* 68 *in this issue*)

# STANDARDIZED OPERATIONS

## GASTRECTOMY

A. LEE MCGREGOR, F.R.C.S. (ENG.), M.CH. (EDIN.)
*Johannesburg*

Medicine is not an exact science. The complexities of surgery are endless. The young surgeon is apt to be discouraged by the number of operations described for a given condition. He requires guidance. This is especially so in teaching centres. It is thus valuable to try to standardize operative procedures. This leads to confidence and increasing skill as experience grows. It does not imply that there is only one way of doing the operation, but it does mean that the beginner is saved the mental distress of floundering in a sea of alternatives; and as his experience mounts so will he be able to vary his methods as occasion arises.

This is the first of a series of articles describing operations which, in the opinion of the writer, are sound in principle.

## GASTRECTOMY

*Partial* (*a*) For ulcer.
(*b*) For cancer.
*Total.*

### PARTIAL GASTRECTOMY FOR GASTRIC AND DUODENAL ULCER

This operation has established itself in therapeutics. The term peptic ulcer is unsatisfactory. It would seem to connote lesions which, though situate in the stomach or the duodenum, are similar in behaviour. This is not so. The etiology is dissimilar. The behaviour is different. Gastric ulcers are notoriously prone to malignancy—the figure is given as 2½%—whereas duodenal ulcers so rarely become carcinomatous that for all practical purposes this possible degeneration may be forgotten.

Duodenal ulcer is a medical condition and is so treated unless some definite factor arises which necessitates surgery. Gastric ulcer is more related to the surgeon. With all accessory diagnostic aids the error in the diagnosis of the simple or malignant nature of the gastric lesion is not less than 14%. The operative mortality for gastric ulcers is negligible (0-3%). It is evident that the correct attitude in duodenal ulcer is one of conservatism, whereas in gastric ulcer it should be aggression.

### THE INDICATIONS FOR OPERATION

*Gastric Ulcer.* Operation is necessary:

(1) If symptoms recur after perforation.
(2) If the ulcer is on the greater curvature.
(3) If the ulcer is prepyloric.
(4) If there is complete achlorhydria.
(5) If the ulcer is an inch or more across.

In a discussion on large ulcers at the Innominate Club held in Johannesburg some years ago, it was agreed by several authorities (including Drs. M. Weinbren and Eric Samuel) that large gastric ulcers are more often simple than malignant. None the less, for lesions of this magnitude operation appears the safer course.

(6) If the ulcer is on the lesser curvature and fails to heal and remain healed after one thorough course of medical treatment.

(7) For severe haemorrhage: (*a*) As an emergency procedure if conservative measures fail to control the bleeding; (*b*) After the bleeding has been controlled and the ulcer treated medically. The optimum period for operation is 6 weeks after the bleeding. The patient should not be subjected to the dangers of a possible second haemorrhage.

*Note*: Penetrating ulcers usually require surgery, as they are resistant to medical treatment.

*Duodenal Ulcer.* Operation is advised:

(1) If the ulcer symptoms recur after perforation.
(2) If pyloric stenosis develops.
(3) If a fistula forms with the bile duct.
(4) If the patient is economically disabled by the ulcer. The average person finds it a great burden to have to lie up for weeks at a time whilst the ulcer is being treated; also the restricted diet and the avoidance of smoking and alcohol become tedious. If the patient has been well treated medically over a period of years, he and the surgeon are both justified in resorting to an operation with enables the patient to live a normal life in over 90% of cases. On the other hand, surgery should be withheld from the patient who puts the entire burden on the surgeon and refuses to accept the restrictions advised by his doctor.
(5) Haemorrhage: The indications are the same as for gastric haemorrhage.

### THE TIME TO OPERATE

The surgeon is usually consulted during an exacerbation of the patient's condition. Apart from perforation and haemorrhage, ulcer is not an emergency. It is therefore advisable to choose the time for surgery. The case of pyloric stenosis often responds to stomach lavage and anti-spasmodics, and an ulcer in an active phase is better handled conservatively before operation. In cases of established ulcer of long standing, it is all to the good if operation can be undertaken in a stage of remission of symptoms, even if X-rays show no ulcer to be present.

### INVESTIGATIONS BEFORE OPERATION

It is necessary to know the general clinical profile of the patient. A test meal is not necessary in duodenal ulcer, but is advisable in gastric ulcer. In achlorhydria dilute hydrochloric acid should be exhibited for some days before surgery. This means that organisms which flourish in the stomach in the absence of hydrochloric acid are kept in check and there is less danger of complications, should leakage occur on the operating table.

The blood proteins should be determined in cases who have lived on a restricted diet for a long time. Every now and then the blood proteins will be very low. Surgery is then fraught with danger and should be postponed until the proteins are improved. This is tantamount to improvement of liver function.

## THE NATURE OF THE OPERATION

### GASTRO-JEJUNOSTOMY

This operation has largely been abandoned in the treatment of ulcer because:

(1) Stomal ulcer follows it in a percentage of cases, variously assessed at from 2-30%.

(2) It is more liable to be followed by mechanical difficulties than is gastrectomy.

(3) The mortality is higher than after gastrectomy.

There is a limited place for gastro-jejunostomy in:

(1) Cancer of the stomach, as a palliative procedure.

(2) Old bad-risk cases who would not tolerate gastrectomy. This is a relative indication, and the more experienced the surgeon, the less frequently will he resort to this procedure.

### ROUTINE PARTIAL GASTRECTOMY

*The Proximal Section.* The principle underlying this operation is that in the uncertainty which envelopes the etiology, the one sure fact is the increased acidity which exists in cases of duodenal ulcer. The operation is planned to lower this factor. Acid secretion is dependent on the production of a hormone by the antrum of the stomach during gastric digestion. This hormone is conveyed by the blood stream to the fundus and body of the stomach, and is the trigger which releases hydrochloric acid from the oxyntic cells. The

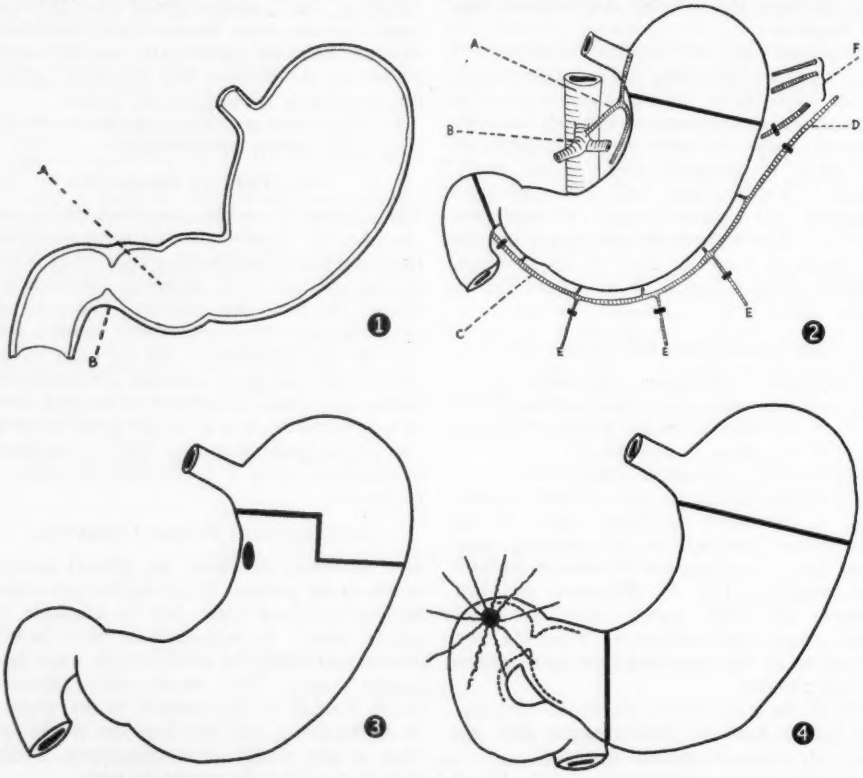



*Fig.* 1. The pyloric antrum is the narrow distal part of the stomach.
A: Pyloric antrum.
B: Pyloric sphincter.
*Fig.* 2. The extent of routine gastrectomy is shown by the black bars.
A: Left gastric artery.
B: Coeliac axis.
C: Right gastro-epiploic artery.
D: Left gastro-epiploic artery.
E: Branches of gastro-epiploic arch.
F: Short gastric arteries.
*Fig.* 3. Gastrectomy for ulcer high on the lesser curve.
*Fig.* 4. Gastrectomy by the Bancroft procedure of section proximal to the ulcer.

essence of gastrectomy, therefore, is the complete removal of the antrum (Fig. 1).

It is thus not necessary to remove the entire lesser curvature of the stomach in the treatment of ulcer. The best guide to the amount of stomach to remove is supplied by the left gastric artery. The section should be made just proximal to the point where the vessel joins the lesser curve (Fig. 2).

On the greater curve the section should be made above the lowest short gastric artery (Fig. 2).

*The Distal Section.* The duodenum is divided distal to the pyloric sphincter through its first part.

### DEPARTURE FROM THE ROUTINE OPERATION

*High Gastric Ulcer.* This is a difficult problem. Whereas high gastric ulcers may heal if the stomach is divided *distal* to the ulcer, the operation leaves the pathology *in situ* and, if it is malignant, the outcome is disastrous. It is therefore advisable to divide the stomach above the ulcer which may entail removal of the entire lesser curvature (Fig. 3).

*Complicated Duodenal Ulcer.* In gastrectomy for duodenal ulcer it makes no difference to the result if the duodenum is divided proximal or distal to the ulcer. All do not agree on this point, but it expresses the author's experience.

There are occasions when it is inadvisable to section the duodenum beyond the pylorus. The general indication for prepyloric section is that distal section would endanger the life of the patient. There may be so much inflammation around the duodenum that it would be unwise to interfere with it. In such cases some surgeons practice a 2-stage procedure; at the first operation the stomach is divided above the bifurcation of the left gastric artery, and the anastomosis with the jejunum performed. The distal part of the stomach is closed. Six weeks later, when the inflammataion has subsided, the operation is completed by removal of the distal portion of the stomach.

In long-standing duodenal ulceration fibrosis may so involve pancreas and surrounding structures that section beyond the pylorus would make the closure of the duodenal stump impossible or insecure. It may be that a fistula exists between the ulcer and the bile ducts. In such difficult cases it may be advisable to open the bile duct and put a catheter into it, so that the position of the duct is known. It is thus less likely to be injured. It can then be determined whether the section should be proximal or distal to the pylorus. If a proximal section is decided on, the results are just as good as a division beyond the pylorus *provided* the mucous membrane of the portion of the stomach left proximal to the pylorus is completely removed. This is a difficult and tedious procedure. The rationale is that the hormone responsible for the secretion of hydrochloric acid is formed in the mucosa of the pyloric antrum and, if any of the latter is left behind, then the lowering of acidity so necessary in the treatment of peptic ulcer will not be achieved. The more experience the surgeon has, the less often will a prepyloric section be necessary (Fig. 4).

### PRE-OPERATIVE HANDLING OF THE CASE

*Pyloric Obstruction.* In these cases there is usually a combination of stenosis together with pyloric spasm. Treatment by daily stomach washouts and ante-spasmodics will often enable the patient to retain an ulcer diet, so that his condition may be improved as a pre-operative measure. If the obstruction is absolute, then lavage is essential. Duodenal ulcer is always associated with a high acidity, so that pre-operative preparation of the stomach is unnecessary. In pyloric obstruction there may be little or no acidity, because of the associated gastritis. When the obstruction is relieved, acidity returns to pre-operative levels. That is why gastro-jejunostomy is so liable to be followed by stomal ulcer.

*Healed Ulcer.* Should gastrectomy be carried out in the presence of a healed ulcer? The answer depends on the case. If the patient has had one or more serious bleedings, the operation should be done. If the patient has suffered from ulcer for many years and it has been properly treated, it is sure to recur and operation can most safely be carried out in the stage of remission.

*Active Ulcer.* Should operation be decided on in the presence of active ulceration, the patient should be hospitalized and treated for a period by medical regime before surgery.

### PRE-OPERATIVE PREPARATION

This is on general lines. Certain information is necessary. The blood count is informative and particularly the blood proteins. It has been found that these may be below safety levels in persons who have been on restricted diets for years. In such cases pre-operative build up is essential. The liver function will fail following surgery if the serum albumin is below 3% (Blakemore*). The prothrombin index and

* Personal communication.

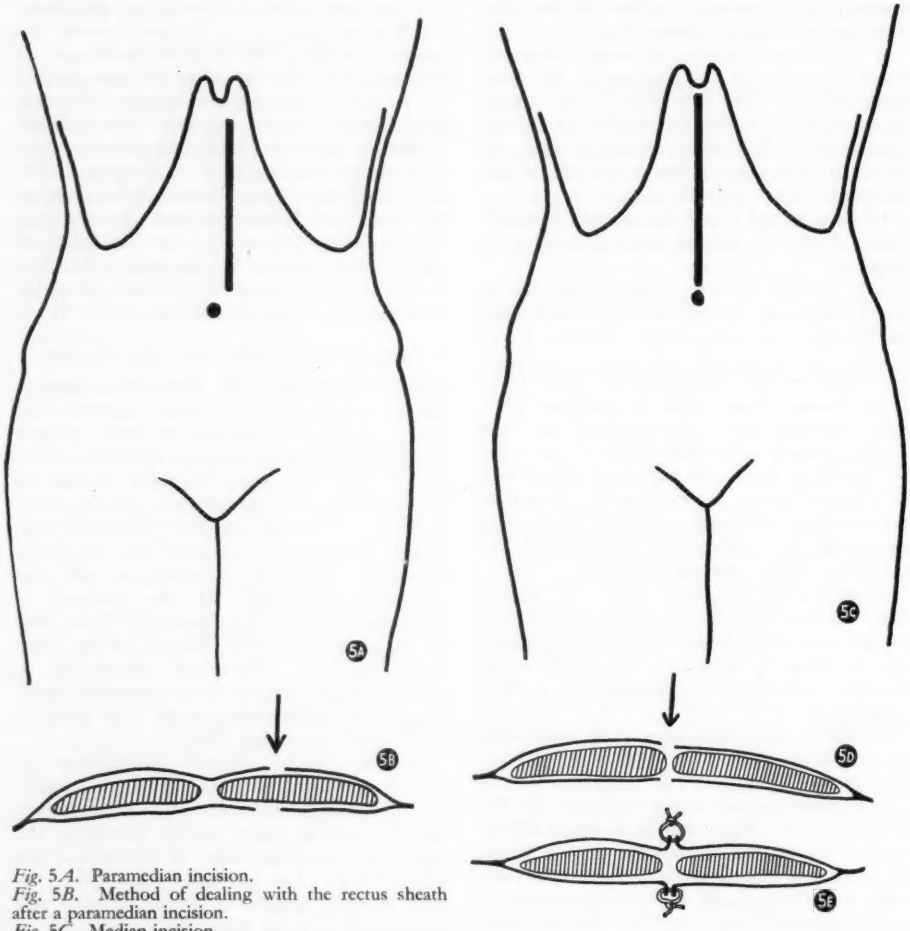



*Fig.* 5*A*. Paramedian incision.
*Fig.* 5*B*. Method of dealing with the rectus sheath after a paramedian incision.
*Fig.* 5*C*. Median incision.
*Fig.* 5*D*. Method of approach when using the median incision.
*Fig.* 5*E*. Two-layer closure obtained by opening the sheaths of the recti after the mid-line approach.

the hippuric acid tests are valuable indications of liver function, and the blood urea should be a routine investigation.

*Skin Preparation.* It has been the writer's custom for years to reduce this to the simplest method possible. The abdomen is shaved the evening before operation. It is then *well* washed with soap and water, followed by spirit. No antiseptic and no drapes are applied. On the table a single application of 2½% Tincture of Iodine is painted on. This is not repeated at the end of the operation. It is obligatory that no member of the team touches the skin during operation.

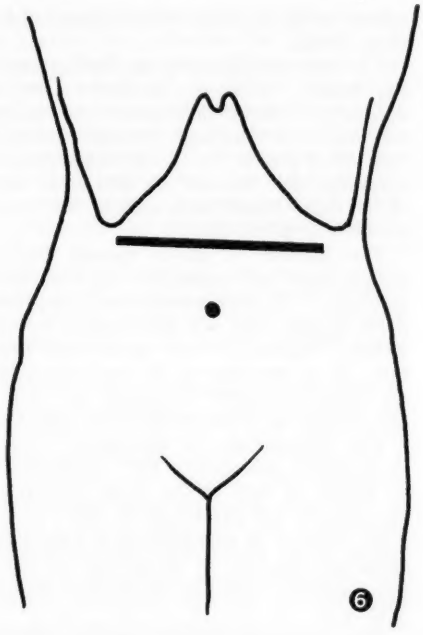
The skin cannot be completely sterilized and the more it is disturbed and irritated before operation, the more epithelial cells are detached and organisms are liberated from hair follicles and sweat glands.

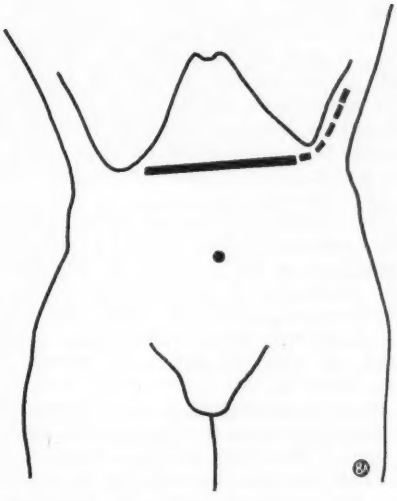
Wound sepsis has ceased to exist with the understanding of these principles.

The patient goes to the theatre with a duodenal tube of the Levin type in the stomach, to be sure of adequate deflation.

## TECHNIQUE OF PARTIAL GASTRECTOMY

*The Incision.* This is planned according to the habitus of the patient. It may be:





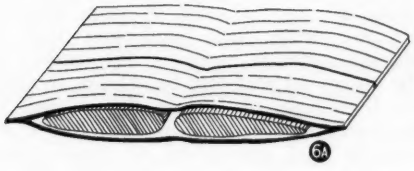
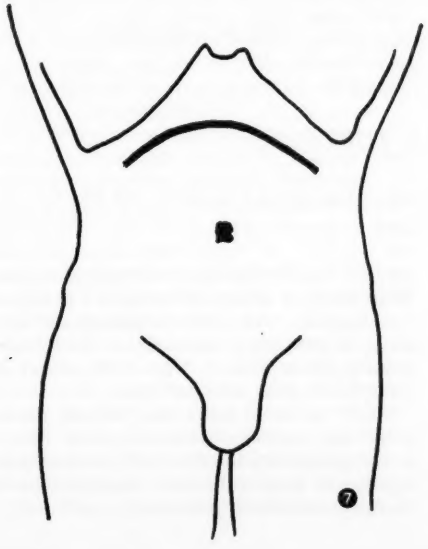
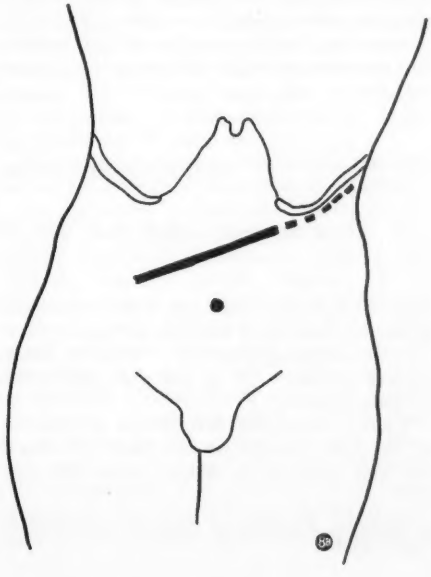


*Fig.* 6. Transverse incision.
*Fig.* 6*A*. The anatomy of the rectus sheaths.
*Fig.* 7. The semilunar incision.
*Fig.* 8*A*. Method of extending the transverse incision into the chest.
*Fig.* 8*B*. Method of extending the oblique incision into the chest.





(1) Vertical (*a*) Midline.
(*b*) Paramedian.
(2) Transverse (*a*) Horizontal.
(*b*) Semilunar.
(*c*) Oblique.

*The vertical incision* has hitherto found most favour. It is advised in patients of asthenic habitus with a narrow subcostal margin. It may be paramedian to the left or right of the midline, usually the former to give access to the upper part of the stomach. The rectus muscle is displaced laterally, the incision through its sheath being protected by the muscle when it returns to its bed. It is a good incision.

*The midline incision* has many adherents. The writer was for long opposed on anatomical grounds to its use. Latterly he has used it with satisfaction. It extends from xiphoid to umbilicus and divides the linea alba, which is a strong aponeurosis in this region. It gives quick and excellent access. It presents the great advantage that if more room is required, as for total gastrectomy, it is readily extended to the fourth costal cartilage and the sternum is split. This gives excellent exposure and takes far less time than any type of extension into the left pleural cavity. The patient is so much less disturbed by the sternal splitting route, and the writer's assistants assure him that in this respect alone it is a considerable advance.

The merits of these exposures in regard to subsequent herniation are about equal. It would obviously be unwise to use midline incisions when there is a wide divarication of the recti. In closure of a midline incision it is sometimes wise to split the anterior rectus sheath, so that a 2-layer fascial closure is done (Figs. 5A-E).

*The transverse incisions* are finding increasing favour. Access is excellent. They are advised in sthenic individuals with a wide subcostal angle and high position of the viscera. They present the considerable anatomical advantage that they do not divide the fibres of the rectus sheath, as is done by the vertical incisions (Figs. 6, 6A).

The incision is placed midway between xiphisternum and umbilicus and cuts across both recti. As these muscles have a segmental nerve supply, they are not harmed by transection. Closure is very secure and hernia rare. It is necessary to be sure that tissues are properly co-apted in sewing up. This is best secured by suturing the linea alba first.

The incision may be semilunar.[1] This is an excellent procedure. The incision curves to within an inch of the costal margin and the muscles are divided here also. It is a good exposure in persons with a wide divarication of the recti, as the abdominal wall is less interfered with than by vertical incisions (Fig. 7).

The transverse incision may be extended along the line of a rib if more room is required, being thus transformed into an abdomino-thoracic exposure. The incision in the abdominal wall may be oblique, trending up from right to left, so that it may be extended into thorax. This is a useful exposure for total gastrectomy or venous shunt operations on the left side (Figs. 8A, 8B).

(*To be continued*)

# INTRA-ABDOMINAL TUBERCULOSIS

C. F. M. SAINT, *C.B.E.*, M.D., M.S., F.R.C.S., HON. F.R.A.C.S., HON. F.R.S.M.*
*Cape Town*

Forty to forty-five years ago, I well remember Professor Rutherford Morison saying, in reference to abdominal diagnosis: 'When in doubt, suspect tubercle.' It is still true and worth keeping in mind.

I am of those who believe that a diagnosis, or the best attempt we can make at one, is the first essential in dealing with any case. Morison used to quote another great surgeon, Wm. Mayo, as always insisting on a pre-operative diagnosis, with a view to getting the maximum benefit from experience. As in other matters, one is likely to learn much more from one's failure than one's successes.

There can be no doubt that, with the steadily increasing number of laboratory tests, there is a strong tendency for the purely clinical investigation of cases to become discounted and to occupy a subsidiary position.

*Emeritus Professor of Surgery, University of Cape Town.

Such a state of affairs is to be deplored, not only because it is fallacious, but also because the human body is not a rigid mechanical or chemical machine and, in addition, because it is subject to the widest range of variation on account of the presence of what we know as the 'personal factor'. It is this very circumstance which must always place prime importance on the clinical investigation and assign to the scientific part of it an accessory position of help.

Abdominal tuberculosis is essentially a case in point, as diagnosis is almost wholly a question of clinical insight and deduction, whereas laboratory methods mostly give negative information.

Especially, too, in abdominal tuberculosis, is a preliminary diagnosis, where possible, of paramount importance, as it will often avoid any operative interference. In fact, it is a platitude that good judgment can only result from a correct diagnosis, which, in its turn, is only likely to be achieved from a thorough knowledge of pathology and its clinical manifestations. Of course, we all recognize that there are individuals who take the view that it is much quicker and easier to 'look and see', instead of adopting the above programme, which is certainly more laborious. Nothing, however, could be more stultifying to clinical judgment—nor more ruthless and inconsiderate towards the patient, who should be the whole consideration.

In abdominal diagnosis we naturally look for type histories and their associated physical signs, and where these are found the diagnosis is usually easy and certain. Many cases, however, present irregularities, both in history and physical signs, and considerable acumen may be necessary to arrive at a correct diagnosis, if that be even possible.

Experience alone can help us in such circumstances, but only where the clinician has learnt from previous practical observation. I think we all accept that experience is the great teacher, but we have to remember that there are some who cannot or will not be taught, and who remind us of the old Persian proverb: 'You may take an ass to Mecca, but he will come back an ass.'

In abdominal tuberculosis, whatever its type, one might truly say that its greatest characteristic is the irregularity of both the history and the physical signs, and their lack of conformity to any specific disease syndrome. Indeed, while it may mimic almost every other abdominal disease, the mimicry is imperfect, so that flaws appear in the clinical picture. As was suggested above, it is the presence of these flaws which suggest the possibility of tuberculosis to the wary practitioner.

Tuberculosis manifests itself in a variety of ways in the abdomen, the commonest by far being, firstly, involvement of the lymphatic glands, especially those in the mesentery, and, secondly, the peritoneum itself.

In children the diagnosis is usually simple and straightforward, but in older patients it may be extremely difficult or impossible. In children, tuberculous mesenteric glands, especially, is a condition which is common and familiar to any medical practitioner of experience. In later life, however, the patient has usually recovered entirely from the symptoms associated with it during its activity, and the result is that the disease has ceased to occupy a position of any prominence on the diagnostic horizon. Not infrequently, therefore, in these cases it comes as a surprise to have the diagnosis ultimately made at operation.

In children one commonly finds that the history is one of persistent ill health and inability to share the romping life of those around them. The appetite is poor and capricious, interest in food is absent, and there are irregular and varying abdominal symptoms, such as pain, vomiting, and diarrhoea or constipation, which bear no definite relationship to one another, or to the ingestion of food, exercise, time of day, etc.

*On examination* the patient is usually found to be somewhat anaemic and emaciated, and there is frequently an irregular temperature, which varies day by day, and which, not uncommonly, presents a morning rise and an evening fall. In most cases there is evidence of tuberculosis in other parts of the body, e.g. glands in the neck, etc.

The abdomen is often somewhat distended, but no irregularity of movement is observed.

*On palpation,* a striking feature is the 'doughy' or 'podgy' feeling presented, with marked absence of resistance to pressure. In addition, enlarged glands, separate or in masses, are often easily felt, most commonly in the ileo-colic angle, i.e. behind the right rectus, medial to McBurney's point. At the same time, they may be felt in other parts of the abdomen. These glands are usually tender on pressure. Frequently, where a definite mass of glands can be felt, particularly in the ileo-colic angle, it is found that the abdominal pain complained of is and has always been situated at that site, and the tenderness on pressure over the mass gives rise to a similarly

localized pain, i.e. it is not referred to other parts of the abdomen, as contrasted, e.g. with the usual case of appendicitis (see Case 7).

The diagnosis of the condition in adults is, as a rule, by no means so simple and straightforward.

In young adults, a proportion of the cases present similar clinical characters to those seen in children and, as such, are easily diagnosed and call for no particular discussion. In older patients, however, the chief interest centres round those indefinite cases, in which the conditions commonly found at that period of life are more or less closely mimicked. In general terms one may repeat that the mimicry is almost never complete. There are thus shortcomings and irregularities in the history and physical signs which arrest the attention and call for caution, and, coincident with the call for caution, the suspicion of tubercle asserts itself or ought to do so.

Diagnosis is particularly important since the prognosis and treatment are entirely dependent on it.

The position is very well put in one of Rutherford Morison's teaching illustrations, viz.:

'If you see an individual walking down the street, with a moustache, wearing a bowler hat, a short jacket and trousers, smoking a pipe, and with the voice of a man, you consider it to be a man; but if the moustache is absent and the voice falsetto, you may entertain doubts; whereas, if, in addition, the bowler be replaced by a picture hat or the trousers by a skirt, you are pretty sure it is a woman.'

(I must say that this differentiation has certainly become more difficult since Morison's time.)

The difficulties encountered will be most easily appreciated and understood by reference to some selected cases, many of them errors in diagnosis, collected over a period of years. They illustrate mimicry of some of the commoner conditions met with:

*Case 1: Simulation of Pyloric or Duodenal Ulcer.*

The patient, D. L., was a young lady 27 years of age, who had been troubled with abdominal symptoms at times for 5 or 6 years. The chief feature of this was the occurrence of pain in the epigastrium of quite severe nature, one hour after the ingestion of food. The pain was unaccompanied by vomiting and was unrelieved by taking more food. Blood had been detected in the stool on several occasions by chemical test, but no macroscopic quantity had been seen. An X-ray had been taken and some deformity of the duodenal cap noted. An eminent physician had had her under his personal care for 6 months, had made a diagnosis of duodenal ulcer, had failed to benefit her at all, and had finally suggested operative interference. She also had from time to time sugar in the urine which was attributed to a chronic pancreatitis associated with the duodenal ulcer.

When I saw her she was in very poor general condition and much below the average body weight. The abdomen presented no abnormal physical signs, with the exception of being softer and less elastic than usual, i.e. doughy.

Excluding the special examinations, it is obvious that the clinical evidence in favour of duodenal ulcer was minimal, the sex and age of the patient and the absence of any of the characteristic symptoms all militating against the diagnosis. The opinion was expressed that probably no ulcer would be found.

At operation nothing abnormal was seen in the stomach, duodenum, gall bladder or appendix, but the mesentery presented diffuse tuberculous glandular enlargement. The abdomen was closed, the patient told the exact situation, the ordinary hygiene for tuberculous patients advised and carried out, and in 6 months the patient had put on 8 lb. in weight and was feeling better than for years before.

*Case 2: Simulation of Duodenal or Small Gut Ulcer.*

The patient, J. G. (a powerfuly built man of 71 years of age) had, for the last 10—12 years, suffered from repeated attacks of melaena, at average intervals of a few months. These were variable in severity, but the worst led to profound anaemia and required blood transfusions. There was no accompanying pain of any sort or other symptoms of indigestion, etc.

Clinically, he was at first considered to be suffering from a duodenal ulcer, but repeated X-ray investigations failed to show it, and the diagnosis was shelved. On the other hand, a course of strict ulcer diet was followed by complete recovery.

With the continuance of the bleedings and the long duration it was considered that he must have a simple chronic ulcer, probably in the small gut, or possibly a simple papilloma, though neither could be demonstrated. In the

event of its being an ulcer, it was most likely to be associated with a Meckel's diverticulum, especially as, up to the age of about 60, he had been a very fit man.

His last haemorrhage reduced his haemoglobin to 28%, and it was decided to explore him.

No pathology was found in the stomach or duodenum, but in the small gut the scar of an old ulcer was found and an active chronic ulcer was present about 2—3 feet from the ileo-caecal valve. There was no sign of a Meckel's diverticulum. The ulcer was excised and it looked exactly like the usual chronic peptic ulcer, but on microscopic section, it was found to be tuberculous—a great surprise, considering the previous history of perfectly good health, his general physical fitness between the haemorrhages, and the absence of anything else to suggest tubercle.

*Case 3: Simulation of Carcinoma of the Duodenum with Obstruction.*

A Coloured female, aged 35, presented with a general history of poor health for some years, accompanied by loss of appetite and indigestion of nondescript type.

In the last few months the symptoms had changed and they now were fairly typical of pyloric obstruction, with dilated stomach, i.e. vomiting of large quantities, usually once a day, with no pain but a sensation of fullness preceding it. Food taken the day before was often present.

There was nothing abnormal to be made out in the abdomen, except the dilated stomach, but X-rays revealed a filling defect on the medial wall of the second part of the duodenum, about the level of the ampulla, with marked obstruction. The appearances suggested either a polypoid growth of the duodenum, possibly an adenocarcinoma in the region of the ampulla, without bile duct obstruction, or else a carcinoma of the pancreas invading the duodenal wall, also without common duct obstruction.

Operation revealed a soft growth in the duodenum but the adjacent peritoneum of Morison's pouch was studded with small nodules and, therefore, eradication was impossible. Posterior gastro-enterostomy was proceeded with to relieve the obstruction and, during the manipulation, a second similar growth was found in the transverse colon, but without any obstruction.

Microscopic report of the peritoneal nodules was tuberculosis.

The patient did remarkably well.

Subsequent X-ray of the chest revealed old tuberculosis of the lungs, which was quiescent.

*Case 4: Partial Intestinal Obstruction, Simulating Peptic Ulcer.*

The patient, a school-teacher aged 35, came with a diagnosis of peptic ulcer, because of pain coming on about 1½ hours after food, often followed by vomiting. She had lost a good deal of weight and had a slight cough.

On careful consideration of the history, the pain proved to be definitely peristaltic in type, associated with some slight borborygmi, and a diagnosis of stricture of the jejunum was made, because of the early occurrence of the pain after food. The most likely cause of this was tubercle.

X-ray confirmed the stricture, with complete absence of abnormality in the stomach and duodenum, and sputum examination was positive for tubercle.

The affected part of the jejunum, with 3 strictures, was excised and the patient did well for about 9 months, putting on much weight. She, however, then developed tuberculous laryngitis and soon succumbed.

*Case 5: Simulation of Intestinal Obstruction due to a Band.*

The patient, J. V., age 47, had, as far as he knew, always been fit till 9 months before, when he began to have pain in the epigastrium, with very irregular relation to food, and relieved by vomiting only.

Clinically there was definite evidence of small gut obstruction, with visible oblique peristalsis, distension and succussion in the left hypochondrium. Free fluid was demonstrable.

The absence of any previous history of illness strongly suggested the possibility of a band as a cause of the obstruction, but the presence of free fluid raised the question of tuberculosis.

At operation, multiple ulcers were found in the small gut, with about a dozen strictures of varying degree, and there was also widespread tuberculous peritonitis.

*Case 6A: Simulation of Acute Appendicitis.*

The patient, S. P. H., a girl of 20, came into hospital because of an acute attack of abdominal pain of a few days' duration. For a considerable time she had had recurring attacks of a similar nature, but none so severe as the last. There had been no vomiting.

On admission she did not look ill and the temperature and the pulse were normal. Locally there was marked tenderness and some rigidity in the right iliac fossa. The tenderness was extreme at one point where a small mass could be felt. A doubtful diagnosis of acute appendicitis was made, though the possibility of tubercle was considered. The absence of vomiting at the beginning, and, after several days, the normal temperature and pulse, associated with the extreme tenderness and the limited degree of rigidity, together with the smallness of the mass after so long a time, were points which suggested the possibility of something unusual.

Operation revealed a normal appendix, but there were several tuberculous mesenteric glands in the ileo-colic angle, some of them calcareous (one three-quarters of an inch in diameter and shining white through the peritoneum).

*Case 6B*: *Simulation of Acute Appendicitis.*

The patient, C. D., was a female clerk, aged 20 years, admitted to hospital with an acute abdominal attack of 24 hours' duration. There had been a similar attack 12 months before, when she was in bed for a fortnight. In the interval she had been well. Vomiting was excessive and much more than is usually seen in acute appendicitis. She was robust and well-nourished. Her tongue had a moist brown fur and the breath was somewhat foetid. Temperature: 99.8 ° F; pulse: 86 per minute. There was marked rigidity and tenderness localized to the right iliac fossa, but no mass was felt. A diagnosis of acute appendicitis was made and operation undertaken.

There was generalized tuberculous peritonitis, with numerous adhesions and tubercles on all the gut examined, as well as many tuberculous mesenteric glands, most marked in the ileo-colic angle. The wall of the caecum also showed extensive tuberculosis. The appendix was inflamed and rigid, was closely associated with the tuberculous disease of the caecum, and was arising at the site of peritoneal reflection. As any interference was almost certain to be followed by a faecal fistula, it was decided to close the abdomen.

The patient made an uninterrupted recovery, the wound healed *per primam,* and no further trouble developed.

*Case 7*: *Simulation of Chronic Appendicitis.*

The patient was a small child, aged 7 years. She had complained for some months of abdominal pain, never very severe, quite irregular in its times of onset, and more often associated with squeamishness than vomiting, which was never pronounced. The pain was always complained of in the right iliac fossa and never anywhere else.

She was a somewhat delicate child, but not anaemic, and bright and cheerful when the pain was absent. There was considerable tenderness somewhat medial to McBurney's point, and the pain produced was felt at the site of pressure, and not referred. No actual mass was felt.

Although the child had been sent into hospital as a sub-acute appendicitis with the concurrence of the assistant surgeon, the senior member of the firm made a definite diagnosis of tuberculous glands in the ileo-colic angle, and this was confirmed at operation.

*Case 8*: *Simulation of Papilloma of the Colon.*

The patient, R. B., was aged 22. He attributed his trouble to an injury while swimming 11 months before. Since that time, at intervals, he had been troubled with pain, chiefly on the left side of the lower abdomen, not very severe in character and associated with rumblings in the same situation. There was no attendant vomiting and no constipation was noted. There was, however, the passage of blood with the stool, usually unmixed with the faeces and coming at the end. The blood varied in amount. When small in quantity it was brightish red, and when large in quantity numerous clots were present the colour of plum skins. His trouble was increased with exertion.

On examination he was found somewhat thin and presented a minor degree of anaemia.

Locally, the abdomen looked normal. There was no rigidity but some tenderness below and to the left of the umbilicus, where a small soft indefinite mass could be felt.

Rectal examination showed nothing abnormal. A barium meal was passed normally through the bowel. Sigmoidoscopy showed a tendency for the lower rectal wall to bleed, but no ulceration was present and the sigmoid up to 12 inches from the anus was normal in appearance.

The faeces showed no sign of inflammatory mischief and no abnormal flora. No portions of new growth were present. Mucus was only present after rectal wash-outs, but was not normally present.

The diagnosis was considered to be possibly a papilloma of the sigmoid colon, with

repeated haemorrhage and a mild obstruction.

Operation showed a normal sigmoid. The rest of the colon was the same. On a limited portion of the small intestine were numerous tiny peritoneal tubercles, and its mesentery contained a great number of enlarged lymph glands, extending from the free margin to the root. The largest was the size of a filbert and was caseating. No macroscopic ulcer of the intestine could be found anywhere.

The abdomen was closed and the patient made a perfect recovery.

The bright red blood no doubt came from the lower rectum and was independent of that due to the tuberculosis.

*Case 9: Simulation of Gall Stones.*

The patient, J. S., aged 30, had been in good health up to 6 years ago, but since then he had been troubled with recurring attacks of pain all over the epigastrium. Most of the attacks lasted for an hour or two, occasionally for a day, and the worst of all lasted for 5 days. The attacks came on rather suddenly and without warning, and were not related to the taking of food. Within an hour or so of the onset he vomited, and when he had vomited some bile he almost at once obtained complete relief. He had never vomited a very large quantity, and had never vomited blood. There had been an interval of 10 months between attacks. During the most severe attacks he could not lie still in bed. He had sometimes obtained relief from a hot water bottle or from exerting pressure in the epigastrium.

On examination of the abdomen there was no tenderness, no rigidity, and no mass to be felt. The only striking thing about the examination was the extraordinary doughy condition of the whole abdomen. The muscular intersections of the abdominal wall were not palpable, but the whole wall appeared to be uniform and flaccid. He was a skinny man with no subcutaneous fat, and the irregularity of his symptoms was very suggestive of a tuberculous lesion, but the possibility of gall stones could not be excluded, and, indeed, it was the more favoured diagnosis by some of those who saw him.

At operation no gall stones or other abnormality could be found in either the gall bladder, the cystic duct or the common duct. The stomach, pylorus and duodenum were quite normal, but a great number of enlarged tuberculous glands were found about the root of the mesentery, many of them being bigger than almonds.

*Case 10: Simulation of Chronic Cholecystitis.*

The patient, a doctor aged 56, had up to the last few months always enjoyed good health.

Recently he had gone 'off colour', lost his appetite and zest for work, and was constantly aware of discomfort and, at times, pain in the right hypochondrium. There was nothing in the way of definite attacks, and nothing that definitely appeared to aggravate the condition. There was no definite relationship to food and no other complaint. He had lost some weight.

On examination there was nothing to be made out except tenderness in the right hypochondrium, no mass being palpable. Straight X-ray was negative, and it was before the days of cholecystograms, so no further information was forthcoming.

A diagnosis of chronic cholecystitis was made, but operation revealed Morison's pouch studded with tubercles, and no cholecystitis. Microscopy showed the condition to be one of tuberculosis.

The patient lived for several years afterwards.

*Case 11: Simulation of Carcinoma of the Gall Bladder.*

The patient, a doctor aged 72, an old international rugby player, had been losing weight steadily for the last 12 months, especially latterly, and his appetite had entirely gone. He thought he had a carcinoma of the stomach, but X-ray was completely negative. A later X-ray showed, however, marked elevation of the right diaphragm, with considerable fixation, and fluid at the right base. Meanwhile he had been running a temperature, had had a rigor and slight jaundice, and he had been very tender over the gall bladder. Examination revealed only some rigidity and tenderness over the gall bladder, but no mass. Blood showed no leucocytosis. His whole picture suggested a carcinoma of the gall bladder, but, in view of the possibility of a purely inflammatory condition, operation was advised.

At operation a considerable quantity of free fluid was present, and the omentum was densely adherent over the under surface of the liver and covered up the gall bladder. It was also partially adherent to the abdominal wall. On separating it, numerous millet seed tubercles were found both in the omentum and on the peritoneum, and on further palpation a similar condition was found throughout the peritoneal cavity, including Douglas'

pouch. The gall bladder wall was felt to be thickened. The findings appeared to confirm a primary carcinoma of the gall bladder with diffuse peritoneal spread. Four nodules were excised for section, and the microscopy report read: 'The histology is that of caseous tubercle. Acid-fast bacilli are demonstrable in the tissue.'

*Case 12: Simulation of Carcinoma of the Pancreas, with Obstructive Jaundice.*

The patient, a Coloured male, between 50 and 60 years of age, was admitted to hospital with obstructive jaundice, which was getting worse.

The history he gave was one of progressive loss of strength and weight over the last few months, with the final development of jaundice. Pain was not a feature of the case and, apart from some discomfort and tenderness in the right upper quadrant of the abdomen, there were no specific complaints.

Clinically, the case was an obvious one of obstructive jaundice, and the most likely cause, in view of the silent nature of the condition, was a carcinoma of the pancreas. The gall bladder, however, could not be felt and this raised the possibility that the obstruction was due to glands, probably secondary malignant ones, in the portal fissure, with obstruction of the common hepatic rather than the common duct. On the other hand, one is familiar with the fact that a distended gall bladder may not be palpable, when it is situated high up under cover of the liver. However, full X-ray investigation failed to demonstrate a primary carcinoma in the gastro-intestinal tract, and naturally the gall bladder did not show up, as a result of the jaundice.

Operation revealed a mass of tuberculous glands, those producing the obstruction being situated in the portal fissure. The gall bladder was not distended.

*Case 13: Simulation of Amoebic Abscess or Infected Hydatid.*

The patient, an African male aged 30—35 years, was admitted to hospital complaining of progressive deterioration of his condition and some pain in the right upper abdomen. He had no appetite and had lost a great deal of weight. He looked ill and was running a temperature up to 100 ° F.

Locally there was a mass in the right hypochondrium which was somewhat tender, appeared to be cystic, was smooth in outline but not very well defined, dull on percussion and inseparable from the liver. It did not move freely under the abdominal wall.

The picture raised the possibility of an amoebic abscess or an infected hydatid cyst, in either case adherent to the abdominal wall, but it was quite unlike a distended gall bladder. Investigation was negative for hydatid, and there was no polymorphonuclear leucocytosis, so that the amoebic abscess looked the most likely diagnosis, in spite of negative reports on the stools.

Operation, however, revealed an encysted collection of pus, the result of tuberculous peritonitis.

*Case 14: Simulation of an Enlarged Spleen, or Pseudo-Pancreatic Cyst of the Lesser Sac.*

The patient, a Coloured female aged 25 years, was admitted with a large mass in the left hypochondrium.

She was in poor general condition, getting steadily worse, and felt unable to do her household work. Her main complaint was a feeling of soreness and discomfort below the left rib margin.

She looked listless and seedy and was running a mild, irregular temperature.

There was a large localized mass in the left hypochondrium, roundish in outline, smooth on the surface, and giving the impression of fluctuation. It was not very clearly defined and and it disappeared above under the costal margin. It did not alter its position with the respiratory movements, but moved with the belly wall, though it was not separable from it. It was dull on percussion. No other abnormal physical signs were made out.

The mass was in the position of an enlarged spleen, but no notch could be felt and the feeling of fluctuation was against it, as it definitely had not the firm solid consistency of the average spleen. Its fixity also suggested some inflammatory condition. There were no conspicuous blood changes.

The more likely possibility was a lesser sac collection of fluid or a pseudo-pancreatic cyst, but there was nothing in the history to support an acute onset. X-ray showed the stomach pushed over to the right by some extra gastric swelling.

On the whole, though there were no other foci to support it, the diagnosis of tuberculous peritonitis was considered the most likely, with an encysted collection of fluid. This it turned out to be.

*Case 15: Simulation of an Ovarian Cyst.*

The patient, N. M., a female child 8 years of age, was admitted because of an abdominal

tumour. She was a healthy-looking child of slim figure, and she had made no complaint of any sort. The tumour had been observed by her mother while bathing her and she sought advice at once.

On admission the temperature and pulse were normal and the general condition good.

Locally, a rounded abdominal tumour was seen and felt, the size of a fist, of elastic consistency, with a smooth surface and a well-defined edge, and moving very freely in the abdomen. In all respects it was a typical ovarian cyst and a diagnosis was accordingly made of ovarian dermoid.

Operation proved it to be a large cystic swelling in the mesentery of the small gut, with a fringe of bowel round it. An attempt was made to enucleate it but it burst during the manipulations and discharged a large quantity of typical tuberculous pus. The condition was therefore, a large abscess resulting from the breaking down of a mass of tuberculous glands.

*Case 16: Simulation of Renal Colic.*

The patient, a boy of 16, had complained for a long time of ill-defined pains in the abdomen, sometimes related to food ingestion, sometimes not so, sometimes followed by vomiting of food taken, though not constantly. The chief complaint, however, was the occurrence of very severe attacks of pain in the right lumbar region passing forward into the right iliac fossa. These came on fairly suddenly and lasted a varying time, passing off gradually. It was difficult to say whether there was any disturbance of micturition during the attacks, as he was very indefinite on inquiry.

He was a thin, emaciated, somewhat anaemic and undersized boy, appetite almost nil. Temperature and pulse were normal.

Locally the abdomen presented some distension and had the typical doughy feeling of tuberculosis. A tender mass could be felt very distinctly behind the lower right rectus muscle, lobulated as if several glands were matted together. Separate enlarged mesenteric glands could be felt on the left side of the abdomen. Nothing abnormal was detected in the spine or pelvis, or in the urinary system. The condition was one of tuberculous mesenteric glands. Appropriate treatment was instituted, i.e. non-operative.

## CONCLUSIONS

In abdominal tuberculosis the free mimicry of most of the ordinary abdominal conditions will be acknowledged.

The mimicry is rarely perfect, and it is this incompleteness, carrying with it atypical pictures of the usual diseases one may expect to find, that raises the suspicion of tuberculosis.

The neurasthenic patient, with functional trouble, will also present these atypical pictures of the common disease; but whereas the tuberculous patient usually looks definitely below par—if not genuinely ill—the neurasthenic, as a rule, appears to be singularly little disturbed by the exaggerated symptoms complained of.

One of the most characteristic local features of abdominal tuberculosis is the persistent 'doughy' or 'podgy' inelastic belly wall.

Enlarged tuberculous mesenteric glands are usually felt fairly readily in young patients, though this is not so in older people.

A full scientific laboratory investigation should be carried out and all available information obtained to confirm or negative the diagnosis.

The diagnosis is of special importance because of its bearing on the prognosis and treatment of the case, and this is particularly so in tuberculosis, as many of the cases are best left alone and operation avoided to give the patient the greatest chance. The general treatment always instituted is fortified by the administration of antibiotics and other drugs.


## OPSOMMING

In gevalle van buiktuberkulose sal die vrye mimiek van die merendeel van die gewone buiktoestande geredelik toegegee word.

Die mimiek is selde volmaak, en dit is juis hierdie onvolledigheid, met die meegaande atipiese beelde van die gewone siektes wat 'n mens sou verwag om aan te tref, wat agterdog op tuberkulose toespits.

Hierdie atipiese beelde van die gewone siektes sal ook aangetref word by die neurasteniese pasiënt met funksionele moeilikheid; maar waar die tuberkuleuse pasiënt gewoonlik die indruk wek dat hy definitief olik, en miskien regtig siek is, skyn dit asof die neurasteniese pasiënt in 'n baie geringe mate van stryk gebring is deur die oordrewe simptome waaroor hy kla.

Een van die mees kensketsende plaaslike kenmerke van buiktuberkulose is die voortdurend ‚deeg-agtige' of ‚vetterige' onelastiese maagwand.

Vergrootte tuberkuleuse mesenterium-kliere kan gewoonlik maklik by jong pasiënte gevoel word, hoewel dit nie die geval by ouer mense is nie.

'n Volledige wetenskaplike laboratoriumondersoek moet ingestel en alle beskikbare inligting moet ingewin word om die diagnose te bekragtig of te verwerp.

Die diagnose is van spesiale belang weens die verband wat dit hou met die prognose en behandeling van die geval. Dit geld veral vir tuberkulose, aangesien dit raadsaam is om baie van die gevalle met rus te laat en 'n operasie te vermy om die pasiënt sodoende die beste kans te bied. Die algemene behandeling wat altyd ingestel is word aangevul deur die toediening van antibiotica en ander middels.

# ARTERIAL ANEURYSMS, YESTERDAY AND TO-DAY

H. J. DU TOIT, M.B., B.CH., DIP. SURG. (RAND)
*Johannesburg*

In the present days of lengthy and detailed discussions of arterial grafting procedures in vogue, when the relative merits of the arterial homografts are weighed against those of nylon or polyvinyl prostheses for the replacement of damaged and diseased arterial trunks, one has little time to reflect on what our predecessors, through many centuries, had contemplated doing in order to save those lives lost as a result of abnormal dilations of their arteries.

The most gradual accumulation of knowledge which has taken place through the ages, since the time of our Roman colleague Antyllus, 300 A.D., has culminated in our present views and methods of treatment, which are still deplorably deficient.

It was to save a life, or to extend the period of time before fatal rupture of the aneurysm, that Antyllus 300 A.D. suggested his operation for the cure of aneurysm. He suggested proximal ligation, followed by distal ligation, and subsequent incision of the aneurysmal sac, evacuation of the clots, and obliteration of the cavity by means of packing (Fig. 1).

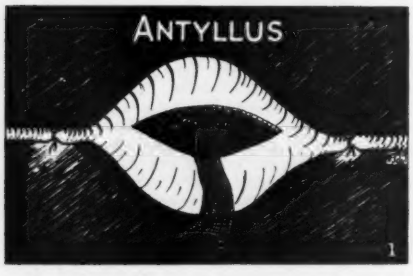



*Fig.* 1. Treatment suggested by Antyllus, 300 A.D.

Our methods of obtaining these ends have undergone some alteration and modernization since the time of the Antyllus, but after a critical analysis of our results, obtained in ultra-modern operating theatres, with special aids to diagnosis, one cannot but notice a very striking similarity between the technique and results of to-day, and those which emanated from the mind of our ancient colleague Antyllus.

It was in 1704 that Prof. Giovanni Battista Morgagni (1682-1771) put forward the following views regarding the management of arterial aneurysms:[2]

'A man who has been given too much to the exercise of tennis and the abuse of wine, was in consequence of both these irregularities, seized with a pain in the right arm, and soon after, a pain in the left arm, with a fever in between. After these appeared a tumour on the upper part of the sternum like a large boil, by which appearance some vulgar surgeons being deceived, and either not having at all observed, or having neglected the pulsation, applied such things as are used to bring these tumours to suppuration'.

Professor Morgagni then described in detail the subsequent discoloration and the process of thinning out of the overlying skin, from which area blood oozed out shortly afterwards. The patient was then transferred to the Hospital for Incurables at Bologna.

At the time of the final rupture of the pulsating tumour, Professor Morgagni stated that the patient had the presence of mind to give up his soul to God and, jumping out of bed, he was able to collect the blood in a receiver before he expired.

Professor Morgagni performed a post-mortem dissection of the tumour. In his reflections on what the treatment of choice should have been, he made the following suggestions:

1. Internal aneurysms should be prevented from enlarging. He did not, however, suggest how to bridle the aneurysm. Did he perhaps have visions of the present-day cellophane wrap to obtain this end?

2. If the aneurysms do enlarge and become covered by skin only, the physician should observe the following important considerations:

   (*a*) The tumour should be handled most carefully.

   (*b*) Should the bandages become adherent to the oozing surface, the dressings should be removed with the greatest care and gentleness.

3. If rupture becomes imminent, the patient should observe tranquillity of mind and body. Professor Morgagni regarded this tranquillity as an essential part of the treatment.

4. Furthermore, the patient was to observe the greatest abstinence possible. He should only be given enough food to keep him alive, and it was to be taken in small quantities. No food of a stimulating nature was to be eaten.

5. It was subsequently suggested that the patient be so positioned as to lessen the weight of the blood in the region of the aneurysm, and no degree of

pressure was to be exerted on the area of thin skin.

6. While these methods of treatment were instituted, to allow the patient to live for another few days, the surgeon was to fashion the following further protective measures:

He should take the bladder of an ox, four times folded, and apply it over the tumour. Furthermore, he was to apply a bandage of soft leather, the edge of which had been daubed with a medicine by which it would become firmly glued to the surrounding areas of skin of normal appearance and thickness.

Professor Morgagni specifically stated that these measures were instituted 'in order to allow the patient to live for another few days'.

It was in 1710 that Anel suggested proximal ligation only, as the treatment of choice for arterial aneurysms (Fig. 2).

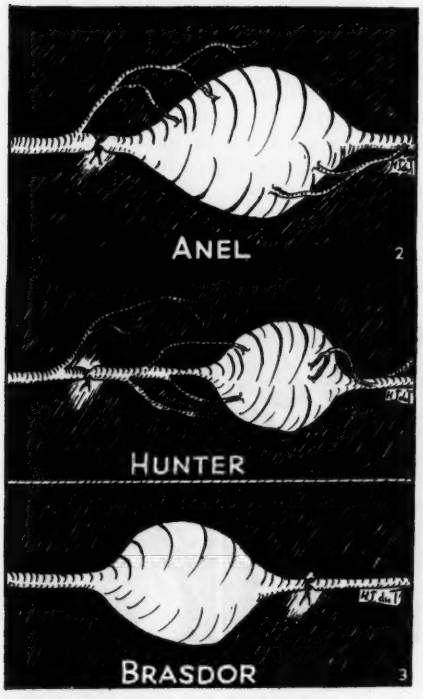



*Fig.* 2. Proximal ligation of Anel.
*Fig.* 3. Proximal ligation of Hunter and distal ligation of Brasdor.

Towards the middle of the 18th century John Hunter made his valuable contribution to the surgery of aneurysms, by suggesting proximal ligation of the main trunk, proximal to some of the main branches of the artery, in order to obviate interference with the collateral circulation to distal tissues (Fig. 3).

Brasdor suggested in 1790 that distal ligation may prove to be the answer to the problem (Fig. 3).

The next most important advance in the treatment of aneurysms was made by Professor Loretta of Bologna during the latter half of the 19th century.[3] On 12 December 1884 he operated on a young sailor aged 30, who had felt something give way in his belly while he was furling a sail during February 1883. The patient had had the primary and secondary stages of syphilis 5 years before that episode.

The case presented to Professor Loretta with a large pulsating swelling in the left hypochondrium, absent femoral pulses and neuralgia in both legs. He regarded it as a traumatic type of aneurysm, probably of the saccular type, and he anticipated a narrowish neck to the sac.

He was determined to expose the neck of the sac, close the opening from the artery by ligature or suture, or empty the aneurysmal sac, invert it and sew it up. If neither of these procedures proved to be feasible, he intended to stuff the aneurysm with wire in order to provoke coagulation.

On opening the abdomen it was found that the liver, spleen, stomach and transverse colon were so adherent to the wall of the aneurysm, that separation was impossible. Wiring of the aneurysm was then performed through a cannula and the abdomen was closed.

A month after the operation the aneurysm became consolidated and diminished to one-quarter of its original size. The patient was allowed to get out of bed on 2 February and was discharged from hospital 3 weeks later.

At a clinical meeting on 11 July 1885, Ericksen was mentioned as having treated 8 cases of traumatic axillary artery aneurysm by proximal ligation, subsequent distal ligation and evacuation of clots, without a single fatal result. Follow-up of these 8 cases or the incidence of distal gangrene, if any, was not commented on.[4]

The next great surgical advance came from Matas[5] in 1888. He placed endo-aneurysmorrhaphy on a firm and systematic basis.[6] He described endo-aneurysmorrhaphy of the obliterative, restorative and reconstructive types (Figs. 4, 5).

The operation as suggested by Matas still forms the basis of our approach to aneurysms to-day.

It was towards the close of the 19th century that wiring of aneurysms (with the additional use of an electrical current, to ensure speedy coagulation) was first reported.

Our methods have changed, and techniques have undergone some alterations and modernization since the times of Antyllus.

The problem remains the same. To what extent have our results improved?

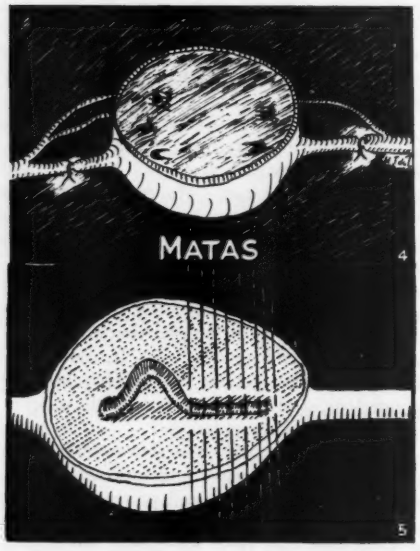



*Fig.* 4. Obliterative endo-aneurysmorrhaphy of Matas.
*Fig.* 5. Reconstructive endo-aneurysmorrhaphy of Matas.

To-day we use cellophane for wrapping around an aneurysm. For the same purpose Professor Morgagni had suggested the bladder of an ox.

Polyethylene tubing now replaces the rubber tubing used by Matas.

One of our recent cases illustrates a present-day surgical procedure, carried out under the most modern conditions of theatre equipment, blood transfusion, high quality anaesthesia, transport of frozen arterial homografts at $-70°C$. and the use of the special aids to diagnosis at our disposal. Yet one cannot help but notice a striking similarity between the technique of to-day and that which was suggested by Antyllus in 300 A.D.

## SUMMARY OF CASE

Mr. M. H., aged 50, had presented himself 5 years after a motor car accident with severe bouts of coughing and slight dysphagia and haemoptysis.

During the accident he had fractured a few upper ribs on the right-hand side. At that time a vague upper mediastinal shadow was noted. He was found at the recent examination to have a right-sided Horner's syndrome, absent pulses in the whole of the right upper limb and right innominate vein obstruction. The superior mediastinum was dull to percussion and on X-ray films a shadow was noticed occupying the region of the upper mediastinum. Brachial venography showed kinking and partial obstruction of the left innominate vein. Subsequent brachial artery angiography by means of catheterization confirmed the diagnosis of an aneurysm (of large dimensions) of the innominate artery. The X-ray appearances suggested that it seemed to be partly coagulated. A marked degree of compression of the trachea was seen on these films.

During November 1955 an operation was performed (Mr. D. N. Fuller and Mr. H. J. du T.). Exposure was obtained by means of a sternum splitting approach and ligation of the left innominate vein. Because the aneurysm was found to be sessile, incorporating the wall of the aorta and the region of the origin of the left common carotid artery, the following procedure was carried out (Fig. 6):

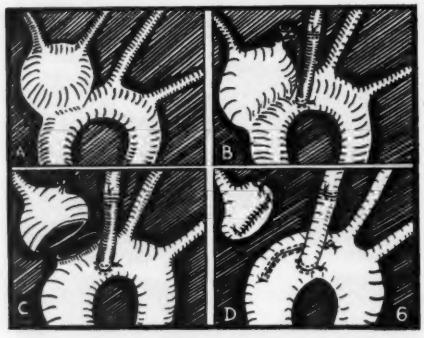



*Fig.* 6. Stages during the operation of inserting a by-pass graft from the arch of the aorta to the common carotid artery, with obliteration of the innominate aneurysm.

By-pass arterial homograft (a common carotid artery preserved in a deep freeze at $-70°C$.) was inserted by proximal anastomosis to the aorta, and distal anastomosis to the right common carotid stem. The base of the aneurysm (arising from the aorta) was clamped, severed and the continuity of the wall of the aorta restored by means of an

everting mattress suture. Obliterative endo-aneurysmorrhaphy completed the procedure.

The period of clamping of the right common carotid artery, in order to effect the distal end-to-end anastomosis, did not exceed 15 minutes.

The patient was in satisfactory condition after the procedure, and remained so for 12 hours, when he developed a left-sided hemiplegia. This proved to be temporary, and was thought to have been caused by an embolus from the proximal anastomosis, which had been the more difficult anastomosis to perform.

When he was presented to a meeting of the Surgical Vascular Unit, 3 months after the operation, it was found that he had recovered almost completely from the hemiplegia, and was highly satisfied with the result obtained.

Examination revealed an absence of pulsation in the right common carotid artery, and it was thought to have become occluded by thrombosis.

Proximal ligation by means of an everting mattress suture, distal ligation, as a result of occlusion of the graft by thrombosis, and obliteration of the cavity of the aneurysm, by means of obliterative endo-aneurysmorrhaphy (a variation on the theme originated by our ancient Roman colleague Antyllus, 300 A.D.), had been performed.


### OPSOMMING

Die geskiedenis van die chirurgiese behandeling van aneurisma word geskets.

Daar word 'n paar minder bekende beskrywings aangehaal, nl. dié van Proff. Morgagni en Loretta.

Die metode en resultate van ouds word vergelyk met die hedendaagse, deur die beskrywing van 'n geval van aneurisma van die a. innominata wat behandel is met 'n homo-transplantaat. Die transplantaat word bewaar by 'n temperatuur van −70°C., en is ingeplaas deur anastomose tussen die boog van die aorta en die regter a. carotis communis.

Daar word gewys op die kringloop van die metodes, terug na Antyllus se oorspronklike behandelingsmetode van proksimale en distale afbinding met vernietiging van die aneurisma deur middel van insnyding en verpakking.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## NOTES AND NEWS · BERIGTE

*Dr. T. H. Bothwell*

Dr. T. H. Bothwell (of Johannesburg) was the first South African medical practitioner to hold a Lederle International Fellowship. He devoted himself to the study of haematology at the University of Washington, Seattle, during the tenure of this Fellowship.

*Dr. J. M. Combrink*

The second South African to be awarded a Lederle International Fellowship is Dr. J. M. Combrink (of Pretoria). Dr. Combrink will also do research in the United States in his speciality, cardiology, at the Johns Hopkins Hospital's Cardiac Clinic in Baltimore.

Dr. B. A. Bradlow and Dr. M. M. Zion have entered into partnership as specialist physicians at Ingram's Corner, Kotze and Twist Streets, Hillbrow, Johannesburg. *Telephones*: Dr. B. A. Bradlow (*Rooms*: 44-0194; *Home*: 42-6321); Dr. M. M. Zion (*Rooms*: 44-2793; *Home*: 45-7856).

* * *

Drs. H. and B. Hirschson, radiologists, are now in practice at their new address, viz. 4th Floor, Federal Building, Roggebaai (Foreshore), Cape Town. Their telephone numbers (2-7012 and 2-1462) remain unchanged.

* * *

*Dr. Albert Rabinowitz*

At a recent meeting of the Royal College of Physicians of Edinburgh, with Sir Stanley Davidson in the Chair, Dr. Albert Rabinowitz of Johannesburg was elected a Fellow of the College.

Dr. Rabinowitz is a physician on the staff of the Johannesburg Hospital and a Clinical Tutor in the Department of Medicine of the University of the Witwatersrand.

### EXPORT OF AMERICAN ANTI-POLIOMYELITIS VACCINE TO CANADA AND ELSEWHERE

Vast quantities of anti-poliomyelitis vaccine have recently been exported from the U.S.A. to other parts of the world.

Over half a million doses of vaccine (Parke, Davis and Lilly) were despatched to South America. Lilly vaccine has also been sent to Norway, Sweden and Canada. On 13 December 1956 over 1,000,000 c.c., weighing more than 5 tons, were air-freighted to Sweden.

Canada, which manufactures its own vaccine, has nevertheless taken over half a million doses of vaccine to supplement its domestic production.

## ELI LILLY MEDICAL RESEARCH FELLOWSHIP (SOUTH AFRICA)

### ESTABLISHED BY THE CAPE TOWN POST-GRADUATE MEDICAL ASSOCIATION

1. Applications are invited from suitably qualified medical practitioners for the Eli Lilly Medical Research Fellowship (South Africa).

2. The Fellowship is for the purpose of medical research and is not intended for post-graduate clinical study. It is available for one year.

3. The value of the Fellowship is 3,000 United States dollars for one year and, in addition, travelling expenses will be allowed, based on a travel budget to be submitted by the Fellow. This will cover the cost of travel and incidental expenses from the place of residence of the Fellow to the approved place of study in the United States of America, as well as the return journey.

4. Other things being equal, preference will be given to candidates under 40 years of age.

5. Any medical practitioner *registered* in South Africa will be eligible for this award.

6. There will be no discrimination for the award on grounds of race, colour, creed or sex.

7. The candidate must submit evidence of his capacity to do original research work.

8. The candidate must submit a programme of the proposed research. He is advised to submit an alternative scheme in case there are difficulties about carrying out the first one.

9. It is advisable for the candidate to indicate at what institution he proposes to undertake the research and he should also state whether he is in a position to make any arrangements to carry out the research at the proposed institution.

10. The successful candidate must undertake to return to South Africa for a period of at least two years after the termination of the award.

11. Applications should be forwarded to reach:

Dr. H. A. Shapiro (Honorary Chairman),
Selection Committee, Eli Lilly Medical Research Fellowship (South Africa),
P.O. Box 1010, Johannesburg,
not later than 30 April 1957.

They should be concise, and accompanied by the names of not more than two suitable referees. Testimonials must not be included.
15 January 1957.

### IN MEMORIAM

We deeply regret to record the sudden death of Dr. Margaret Orford. She was in practice in Johannesburg as an obstetrician and gynaecologist.

Dr. Orford graduated at the University of the Witwatersrand in 1938 and became a member of the Royal College of Obstetricians and Gynaecologists in 1946.

Her friends and patients have decided to establish a memorial fund in her honour.

### DEATH OF PROF. M. PONZIO

Prof. Mario Ponzio who died in Turin, Italy, last year at the age of 71, was a prominent Italian cancer research worker and Professor of Radiology at the University of Turin. He had undergone 19 operations to delay his inevitable death from radium burns suffered in his experiments. In 1955 he was awarded Italy's highest honour, the Gold Medal for Valour.

### BRITISH DOCTORS AND THEIR WAGE CLAIM

In *Comments on the Week's News* the *New Statesman and Nation* writes as follows (5 January 1957, p. 2):

#### THE DOCTORS' WAGE CLAIM

There is no doubt that doctors feel strongly about their claim for a 24% increase in their Health Service earnings. They insist they are paid under a contract which must be honoured by the government. The Spens Committee formula on which they were induced to come into the service recognized that their average earnings should be higher than in 1939. It also included a phrase which is causing all the trouble, namely that the agreed figure of 18% above 1939 earnings should be adjusted ' not only to estimates in the change of the value of money but to the increases which have, in fact, taken place since 1939 in incomes in other professions '. In 1952 the Danckwerts adjudication of the ' betterment ' factor brought their incomes to an average of £2,222, plus £980 expenses. An equivalent adjustment now would bring them another £10 a week. It is not surprising that the government flinches at this provocative claim at a time when it is urging wage restraint, but the Minister of Health's stupidly brusque rejection of it has roused an ugly mood. Legalistically the doctors have a strong case; the pledge to honour the Spens formula was repeatedly given when the Health Service was launched. The least the government can do is to offer to re-negotiate it. By agreeing at last to meet the B.M.A., Mr. Turton may now be recognizing this. The real problem is what adjustments should be made. By insisting on an automatic guarantee against falls in the value of money the doctors are claiming a specially privileged position. The Danckwerts award increased their earnings to 137% over pre-war; for an Assistant Secretary in the Civil Service the increase has been only 73%—including the recent Royal Commission award. The doctors' new claim, by increasing the differential with other professions, would heighten the grievances elsewhere—not least in teaching. It brings out the need for a comprehensive review of professional rewards in the light of emerging social needs rather than old social traditions. How, for instance, can we justify paying doctors more than physicists who lecture and

do research work in some of our leading hospitals and universities—and draw salaries ranging from only £800 to £1,400 a year? On the other hand, doctors are on stronger ground in pressing for more financial encouragement for those doctors who give better service; and adjustments to meet this ought to be discussed. One suggestion is that the expenses allowance should be based on actual expenditure in each case rather than on a national average. There may also be cases of real hardship where doctors are earning much less than £2,222. In pressing points like this the B.M.A. will have public sympathy.

### IONIZING RADIATIONS

Although the problem of protection from the effects of ionizing radiation has been with us since the world became aware of the injuries suffered by the pioneers in radiology, the focus of concern has shifted from the field of somatic injuries to that of genetic injuries.

This changed perspective has resulted from a lowered incidence of gross overexposure following better understanding of methods of protection; an increase in the number of people subjected to radiation exposure as a result of increased medical, industrial and military use of X-ray generators and radioactive materials; and the discovery that genetic injuries can be produced by exposure to radiation in amounts well below the so-called maximum tolerance dose.

The concept of the permissible dose includes the acceptance of a limited degree of genetic damage to a limited population so that mankind's genetic stream, though altered, will not be overwhelmed by undesirable traits. The amount of damage that is acceptable is a matter of philosophy. There is no experimental evidence specific to man that would indicate what this dose should be. It is obvious that efforts to reduce gonadal exposure to radiation should be as thorough as practical means will allow.

[From *United States Armed Forces Medical Journal* (1956); **7,** 1287].

## REVIEWS OF BOOKS

### MANAGEMENT OF POLIOMYELITIS

*Handbook on Poliomyelitis.* By Joseph Trueta, M.D., D.Sc. (Hon.) (Oxon.), F.R.C.S. (Hon.) (Canada), F.R.C.S., A. B. Kinnier Wilson, M.A., M.B., M.R.C.P., D.P.M. and Margaret Agerholm, M.A., B.M., B.Ch. (Oxon.). 1956. (Pp. 135 + Index. With 26 Figs. 20s.). Oxford: Blackwell Scientific Publications, Ltd.

Anterior poliomyelitis is both endemic and epidemic in Southern Africa. It is therefore imperative for every practising doctor in this country to familiarize himself with the acute problems and management of this disease.

Prof. Trueta and his colleagues have covered all the necessary ground for this purpose in their excellent monograph. Brief descriptions of the history, epidemiology, virology, immunization and pathology are presented. The clinical description and diagnosis of the disease are discussed in adequate detail. Correct management in the acute phase of the illness is essential, and in cases with respiratory and swallowing difficulties may make all the difference between life and death. The detailed handling of the acutely ill patients is described, e.g. relief of pain, positioning of limbs, protection against pressure sores, etc. Considerable emphasis is laid upon the indications, positioning and handling of patients in the respirator or those requiring positive pressure breathing. The indications and complications of tracheotomy are discussed. Detection of respiratory insufficiency and the measures required for its prevention and treatment are described.

The chapters on the management in the recovery period and the handling of the permanently affected patient are excellent. They cover all aspects of the patient, e.g. psychological, adaptation to environment, etc., as well as the surgical measures designed to stabilize function. The reader is presented with a complete picture of the patient in the various phases of the disease and the essentially practical approach will be most valuable to all those handling acute poliomyelitis—physician, nursing sister, physiotherapist, orthopaedist and otolaryngologist.

### PAEDIATRIC DERMATOLOGY

*Practical Pediatric Dermatology.* By Morris Leider, M.D. (Pp. 413 + Index. With 280 photographs and 13 drawings. £4 9s. 3d.) 1956. St. Louis: The C. V. Mosby Company.

Take an experienced dermatologist of world-wide repute, a double handful of wisdom, a pinch of Attic salt; garnish lavishly with illustrations and have the whole served up by a leading publisher. This superb dish should be on the table of every paediatrician and dermatologist, as well as the practitioner who has the time and desire to increase his efficiency.

The need for a book such as this is set out with his usual clarity by Sulzberger in a foreword, and his approval of the work of his pupil and associate should carry great weight. In particular, one senses his support in Leider's deliberate omission of dietary and psychosomatic factors from the important causes of skin disease in children. This attitude will, of course, find many opponents, particularly among those who feel obliged to cite a cause for every effect, and preferably a cause which is not susceptible of rigid proof—or rebuttal.

The mode of presentation is largely traditional and quite satisfactory; the chapter on *Basic Science Aspects of Dermatology* is fuller and more helpful than similar expositions in larger works, and should be read with care in its proper place, at the beginning of the book. Similar praise must be given to the succeeding chapters on *Diagnosis* and *Treatment.* A useful innovation is the printing of the *Formulary* of 101 prescriptions on blue paper, contrasting with the rest of the volume and making

for readier reference. With few exceptions the subject matter is up to date; without exception it is presented in an agreeable, concise and often witty form, so that almost any part of the work could be read as a lecture—no mean achievement. There is ample internal evidence to show that Morris Leider is a man of culture. His book is a powerful argument against to-day's tendency to sacrifice traditional upbringing for ever earlier technical education.

Among other features which deserve commendation are the wealth of tabular matter and the concise summaries and glossaries located at strategic points. The illustrations, chiefly taken from the collection of the Skin and Cancer Unit of the New York University Hospital, are of outstanding excellence and didactic value. The author's natural style and his avoidance of the worst excesses of modern pseudo-scientific jargon make it possible to add that this book is written in English.

The following criticisms are given only as suggestions for future editions. The author has deliberately omitted almost all references. It is suggested that at least one reference to a comprehensive article should be appended to each of the uncommon dermatoses listed in Chapter XIV as a guide to the physician who encounters such cases. The reviewer deplores the passion for ointments displayed in the treatment of acute impetigo; in his own experience he finds lotions far safer in the hands of parents and other unskilled attendants. On p. 160 warts appearing in scratch marks by direct inoculation are wrongly said to illustrate the Koebner phenomenon; 'onchocercus' on pp. 181 and 193 is incorrect and the treatment of Onchocerca volvulus and other filarial infestations with Hetrazan (Banocide) is not mentioned. On p. 327, under 'Weber-Sturge Syndrome', hemihypertrophy is mentioned; the author has actually incorporated the Klippel-Trenaunay-Weber syndrome with that of Kalischer, Sturge and Weber. One unfortunate omission is that of the almost diagnostic baldness in acrodermatitis enteropathica.

In few books of this size are so few errors discovered by the conscientious reader. This work can therefore be recommended on the grounds of accuracy, as well as of its other excellent attributes.

### SUBARACHNOID HAEMORRHAGE

*Subarachnoid Haemorrhage*. By John N. Walton, M.D. (Durh.), M.R.C.P. With a Foreword by Sir Charles Symonds, K.B.E., C.B., D.M., F.R.C.P. 1956. (Pp. 323+Index. Illustrated. 30s.). Edinburgh and London: E & S. Livingstone Ltd.

In this book Dr. Walton has assembled all the previously published data concerning subarachnoid haemorrhage and has added his experiences with 312 cases who were admitted to the Royal Victoria Infirmary, Newcastle-upon-Tyne, during the years 1940-1949 inclusive.

The result is a most comprehensive and detailed survey of the subject. Very little of importance appears to have been omitted.

He has correctly indicated that ruptured aneurysm is likely to be present in about 80% of cases of subarachnoid haemorrhage; that in about another 10% angiomata may be demonstrated, and that the remainder may be made up by the rarer conditions.

His conclusions regarding ligation of the internal as against the common carotid artery are interesting, if not generally acceptable.

At this stage of rapid surgical advance in this condition, the evaluation of medical *versus* surgical results by a physician is a fair one.

This is a valuable reference book and, unlike most books of reference, it makes interesting reading.

## CORRESPONDENCE

### MEDICAL AID SOCIETIES

*To the Editor*: In regard to your Editorial and Dr. de Wet's article on Medical Aid Societies, it seems to me that most of the difficulties on both sides would disappear if we followed the tradition of dealing with our patients as private persons—and not as members of Medical Aid Societies. We could still follow the ancient medical practice of reduced fees for lower income groups. Meantime the Medical Aid Societies could arrange to assist their members to pay their medical fees—but the responsibility would still be the patient's to pay his doctor. Medical Aid Societies may consider scaling their subscriptions according to income; for if the doctor must scale his fee, why not the subscriber?

We have in truth been sold a pup: we make a 30-40% reduction in order to save 5-10% bad debts! At the same time we are compelled to act contrary to what the Medical and Dental Council calls the 'spirit and tradition of the profession' by providing a tariff of which a butcher would be ashamed: for a kidney (special rates if done by a general practitioner) 30 guineas; hide stitching and wart removals 2 guineas; and so on.

No one but his own patient knows what the doctor does for him: but our fees are subject to query and control and endless alteration by an uninformed clerk whose medical knowledge is nil. Our bookkeeping is put to endless trouble—more expense. I do not criticize the secretaries of medical aid societies; they have no other standard to follow except 'the tariff'. As if any tariff can be anything but a guide to personal professional services whose rating must necessarily change with the ever-changing circumstances of individuals and their sicknesses.

There is only one person who should be able to ask the doctor about his fees, to query them if necessary, to arrange terms, too, if necessary, and so on: that is the patient. The sooner we re-establish personal doctor-patient relationships, the better for the practice of medicine.

Frank Proksch, M.B., Ch.B.

802, Colonial Mutual Bldg.,
West Street, Durban.

[See also *Editorial* on *Twenty-Four Percenters* in this issue, pp. 45-48.—*Editor*]

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